

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

DENNIS DAYE
MICHAEL DENICTOLIS,
AND RICHARD COSTA,
Petitioners

v.

No. # 1:04-cv-12045RGS

KATHLEEN DENNEHY,
Respondent

PETITIONERS' SUPPLEMENTAL MEMORANDUM IN SUPPORT OF THEIR
PETITION FOR HABEAS CORPUS RELIEF PURSUANT TO 28 U.S.C. § 2254

INTRODUCTION

Brick by brick, over the past twenty years, the petitioners, who are actually innocent, have disproved every essential element of the state's case. Specifically, the petitioners have uncovered (1) Boston police reports of other suspects, not turned over to the defense (*See*, First Petition for Habeas Corpus); (2) A videotaped statement under oath from the state's sole identification witness indicating that she was paid \$10,000 to assist in securing the petitioner's convictions; a promise never turned over to the petitioners; (*See*, Stayed Petition for Habeas Corpus); (3) Information that the same witness was illegally coached and supplied with details of the crime she otherwise did not know, information that was also withheld from the petitioners (*See* Stayed Petition for Habeas Corpus); and finally, (4) That the expert testimony linking the petitioners to the single piece of physical evidence corroborating the false identification was based on a flawed scientific premise - Comparative Analysis of Bullet Lead (CABL) - and has recently been abandoned by the FBI.

In this memorandum the petitioners prove that CABL evidence, the final link in the chain that caused their convictions, has unraveled to reveal that three innocent men have spent over twenty years in jail for a crime they did not commit. The petitioners have discovered new information that casts real doubt on the validity of their convictions and the denial of the Fourth Motion for a New Trial. Specifically, a recently released Report from the National Research Commission (“NRC report”) reveals that a single bullet fragment was used to erroneously link the petitioners to a bullet retrieved from one of the victim’s bodies. The Commonwealth presented expert testimony concluding that the bullets came from the same batch or same box of ammunition. The Commonwealth then relied on this testimony in closing arguments to link the petitioners to the murders.

The Superior Court denied the petitioners’ Fourth Motion for a New Trial after an evidentiary hearing, by erroneously concluding that the NRC’s 2004 report on Comparative Bullet Lead Analysis was not “newly discovered.” The Supreme Judicial Court denied the petitioners Application for a Leave to Appeal on January 18, 2007, without a hearing. Petitioners filed a Motion for Reconsideration. The Supreme Judicial Court denied petitioners Motion for Reconsideration without a hearing on February 13, 2007.

Petitioners maintain that they are actually innocent such that the principles of comity and finality that inform the concepts of cause and prejudice must “yield to the imperative of correcting a fundamentally unjust incarceration.” *Schlup v. Delo*, 513 U.S. 298, 319 (1995). The petitioners’ have fully exhausted all claims.

Prior Proceedings

On July 25, 1987 two separate juries (Ronan, J.) convicted the petitioners of two counts of first-degree murder and armed robbery, and armed assault in a dwelling. While their direct appeal was pending in state court, the petitioners came into possession of two police reports that implicated others in the murders of the Paglias.¹ The State Supreme Judicial Court remanded the petitioners' case to Superior Court to allow them leave to file a Motion for a New Trial. The petitioners filed a Motion for a New Trial claiming in part, *Brady* violations for the Commonwealth's failure to disclose these two reports inculcating other suspects in the Paglia homicides. *Brady v. Maryland*, 373 U.S. 83 (1963). On October 16, 1987, Ronan, J., denied the petitioners Motion for a New Trial without an evidentiary hearing. (Exhibit 2). The petitioners consolidated their appeal from the denial of the Motion for a New Trial with their direct appeal. On January 29, 1992, Supreme Judicial Court affirmed their convictions. *Commonwealth v. Daye*, 411 Mass. 719 (1992). (Exhibit 74).

The petitioners filed a petition for habeas corpus relief in this Court. On April 7, 1993, this court, Woodlock, J. remanded the case to state court to allow the petitioners an opportunity to exhaust their federal claims. (Memorandum and Order 4-2-93, Woodlock, J., Exhibit 3).

On January 28, 1994, the petitioners filed their Second Motion for a New Trial and request for an evidentiary hearing. On October 12, 1994, the Superior Court, Donovan, J., denied the petitioners' motion without an evidentiary hearing. (Exhibit 4).

¹ The first report was the "Macchia Report", authored by Lynnfield Police Officer Vincent Macchia. In the report, Macchia claimed that he spoke to Elizabeth DiNunzio, the sister of Vincent Limoli, relative to Limoli's recent murder. According to Macchia, DiNunzio claimed "people high up in the underworld" told her that Costa killed Limoli and the Paglias. Daye's claimed Lynnfield Police connection to and interview of DiNunzio would have put them on notice of Lynnfield Police cooperation with Boston Police and led to the discovery of the Murphy-Pitito Report, which implicated Limoli, Barone, and Salemme in the Paglia homicide. The second report was the "Zuc Report" which implicated another person in the murder of Robert Paglia.

The petitioners re-filed their petition for habeas review and request for an evidentiary hearing in Federal Court, Woodlock, J. On September 23, 1997, this Court dismissed their petition without an evidentiary hearing. (Memorandum and Order 9-23-97, Woodlock, J., Exhibit 5). Specifically, Judge Woodlock “declined to permit the federal habeas corpus forum to be used for further development of this state case.” (Exhibit 5). This decision, now appears at odds with a recent First Circuit case, *Teti v. Bender*, 507 F.3d 50 (1st Cir. 2007), requiring habeas corpus petitioners to develop additional facts.

On September 14, 1999, the First Circuit affirmed the district court’s dismissal of the petition for habeas corpus. (Judgment 9-14-99, Silvia, Bowdin, & Lynch). On April 17, 2000, the United States Supreme Court denied their petition for a writ of certiorari. *Daye v. Maloney*, 120 S.Ct. 1830 (2000).

Petitioners filed a Third Motion For a New Trial and request for discovery based on new Freedom of Information disclosures, as well as Karen Moodie’s recantation of her trial testimony; her disclosure of a \$10,000 payment that was not disclosed to the petitioners; and her disclosure that she was supplied with details of the crime by case agents to wrongfully implicate the petitioners. On September 26, 2002, the Superior Court denied the petitioners’ Motion for a New Trial and Request for Discovery and an Evidentiary Hearing. (Memorandum of Decision and Order, 11-26-02, Rouse, J., Exhibit 73). The petitioners sought permission to appeal the denial of their third Motion for a New Trial. In September 2003, the Supreme Judicial Court denied petitioners request for leave to appeal. The petitioners sought relief pursuant to 28 U.S.C. sec 2254, but

requested that the petition be stayed pending the resolution of their Fourth Motion for a New Trial.

Since their second petition for habeas corpus was filed and stayed on February 4, 2005, the petitioners filed their Fourth Motion for a New Trial on the basis of newly discovered evidence. Specifically, the petitioners became aware of a February 10, 2004 NRC report concluding that expert testimony using Comparative Analysis of Bullet Lead (“CABL”) to conclude that two bullets originated from the same box or same batch of lead, manufactured on the same day, is false and cannot be supported by the scientific community. The report, “Weighing Bullet Lead Evidence,” makes specific reference to the petitioners’ case and concludes that expert testimony of the nature presented to the jury in *Commonwealth v. Costa, Daye and DiNictolas* is patently unreliable, false and misleading. (NRC p. 92 FN-85) The report concluded convictions based in whole or in part on the testimony of a FBI bullet lead analysis matching a spent bullet to the same box or batch of ammunition linked to the defendants is erroneous and false evidence. In early 2008, the FBI agreed with the NRC report and prohibited its agents from any further testimony premised on the faulty CABL theory.

FACTS

Trial Evidence

The defendants were each convicted on indictments charging two counts of murder in the first degree, two counts of armed robbery, and two counts of armed assault in a dwelling, arising from the deaths of cocaine traffickers Robert² and Patricia Paglia. *Commonwealth v. Daye*, 411 Mass. 719, 720-721 & 722 (1992). In securing this

² Robert Paglia was convicted of trafficking in cocaine. Paglia’s conviction was the result of an undercover operation under the code name “Operation Cove.” Paglia was the first person in Massachusetts to be identified as cocaine trafficker with ties to organized crime.

conviction, the Commonwealth relied almost exclusively on the testimony of Karen Moodie,³ a heroin addict with a lengthy criminal record; and the expert testimony from Federal Bureau of Investigations Special Agent Riley connecting a spent projectile retrieved from the victim to a lead fragment found in Rye New Hampshire at a house where Moodie claimed the defendants conducted target practice.

Almost two years after the murders, after police arrested Moodie on drug charges, Moodie claimed that she had information on the Paglia homicides. In short, Moodie claimed she was Costa's girlfriend and that she overheard conversations between Costa, Daye and DeNictolis about the murders of the Paglia's; and that Costa gave her some of the proceeds of the robbery after the murders. To bolster her story, Moodie claimed that the defendants conducted target practice in the cellar of a Rye, New Hampshire house. Based upon Moodie's story, police recovered a damaged lead fragment from the cellar of a house in the Rye N.H. to which Moodie linked the petitioners. Initial tests conducted by FBI Special Agent Riley concluded that none of the spent projectiles recovered in or around body of the Paglia's matched the fragment from the Rye house.

Nevertheless, Agent Riley convinced the Commonwealth that there had to be a fourth bullet in the victim's body. The Commonwealth exhumed Patricia Paglia's body, conducted second autopsy and discovered a fourth bullet that had apparently gone undetected during the first autopsy. It is undisputed that Patricia Paglia's body bore only three entry wounds, however, the Commonwealth asserts that the fourth bullet was

³ Moodie, a heroin addict with lengthy criminal record and outstanding criminal charges, testified under a non-prosecution agreement and in return for various benefits and rewards. (Daye at 721 & 722-725. See also, Moodie trial testimony generally.) Moodie has recanted her trial testimony. In addition, beyond the benefits and rewards detailed in her trial testimony, the defendants discovered that the Commonwealth paid Moodie \$10,000.00 in exchange for her testimony. The Commonwealth has admitted that some payment was made, but disputes the exact amount of the payment. (See, Moodie Affidavit and record in third new trial motion).

discovered inside her body during the second autopsy. Special Agent Riley testified that his testing confirmed that this fourth bullet (Q 34) was manufactured from the same batch and same box of ammunition that the lead fragment recovered from the cellar of the Rye house⁴.

In its original opinion, the state court found that the petitioners were connected to the crime by Special Agent John Riley testimony that CABL conducted on bullets and bullet fragments recovered from and near the body of Patricia Paglia and a lead fragment found in the basement of the Rye house. *Daye* at 741.

Riley premised his opinion by explaining the science behind CABL, which includes NAA and ICP forms of lead testing. Riley told the jury that NAA is “very accurate, it is a state of the art in elemental composition, you just can’t get more sensitive than using nuclear methods, so we look for three elements if we find three elements the samples, we move on to look at those samples by ICP testing.” (Tr. 7:27). Riley compared the bullets taken from the body of Patricia Paglia with the lead fragment recovered from the Rye house. Ultimately Riley testified, over the defendant’s objection, that the three lead fragments from the Paglia scene (designated Q4, Q5 and Q34) “originated from the same box of ammunition, or from another box of ammunition that was produced at the same place on or about the same date” as the Rye house bullet (designated K1). *Daye* at 741. (See also, Riley testimony, Tr. 7-14-87, pp. 34-35, 39 &

⁴ In explaining how thorough his testing procedures were, Riley explained that he and his team took three samples from each specimen weighed it, packaged it and analyzed it using two different techniques. (Tr. 7: 18-24). The first technique was called a Neutron Activation Analysis (NAA) and the second technique was called Inductively Coupled Plasma Emission Spectrum or ICP. NAA testing is conducted by making trace elements radio active using a nuclear reactor, thereby permitting identification of those trace elements via measurement of gamma rays. (7: 19). Riley told the jury that every trace element has a gamma ray that is unique to itself, shared by no other. (7: 19). According to Riley, after he completed the NAA test, he and his team conducted ICP testing. During IPC testing lead is placed in a solution and which is then burned at a high temperature. (Tr. 7:24). The flames give off energy in the form of light. Each trace element produces a unique light wavelength. (Tr. 7: 24).

42, attached as Exhibit 2). In describing how sure he was that the samples matched, Riley used the follow language: “Those are for all intents and purposes the same exact” . . . “they are essentially the same” and “they are the same” (Tr. 7:32-33) and later “they do match” . . . “they are analytically indistinguishable.” (Tr. 7:112)⁵.

Riley went on to assure the jury of the reliability of his conclusion by telling them “there are not too many people that do bullet lead examinations, there are not many people who have done research on bullet lead in sufficient amount to be able to have the background to make or draw a conclusion on the examination of bullet lead. The group I work with back at the FBI laboratory has done more work on bullet lead than the rest of the country combined and we are forerunners the leaders, the expertise in the field of bullet lead examination. “I feel that we are the only ones with sufficient background knowledge and research data to make conclusion that have a strong meaning behind them.” (Tr. 7: 114). Riley further told the jury, “If you’re going to reach a conclusion on a bullet coming from a certain box of ammunition, you have to conduct research on boxes of bullets . . . you have to have the experience in the field . . . to make a proper conclusion.” (Tr. 7:116). “I don’t think there is anybody that can render an opinion as strong as our group at the FBI.” (Tr. 7: 140).

Based on Riley’s testimony the prosecutor argued: “But lastly, I feel that the evidence which most directly ties these three defendants in the killings of the Paglias is

⁵ In addition, again over the defendants’ objection, Riley told the jury for the first time while he was on the witness stand that the three intact Paglia bullets found near the body of Patricia Paglia (designated Q1, Q2 and Q3) “could have come from the same box of ammunition” as the Paglia fragments and that, therefore, they may also be linked to the Rye House bullet, even though these three bullets are distinguishable from the Rye House bullet in a head-to-head comparison.⁵ Daye at 741. Riley testimony at 29-31 & 35 – 37, Exh. 2. The defense objected to Riley’s testimony that Q1, Q2 and Q3 were in the same “ballpark” and to the possibility that they came from the same source. The Court overruled these objections. (Tr. 7:).

the ballistics evidence.” (DeNictolis: Tr. 7-24-87, p. 88, Exh. 4) (Daye & Costa identical: Tr. 7-23-87, p. 96, Exh. 3). The prosecutor further argued:

So I suggest to you, members of the jury, when you combine the information that Corporal Scott has provided you, with the information that Agent Riley has provided you, you have this: K-1, the bullet from the cellar had the same riffling system, similar tool marks as all four of the bullets taken from Mrs. Paglia, and K-1 came from the same box, the same the same batch of ammunition, made on the same day, by the same manufacturer as one of the four bullets taken from Mrs. Paglia, and that fact, as much as any other fact, tells you that the murderers--murderer of Mrs. Paglia, and presumably Mr. Paglia, had been in that house in Rye, just as Karen Moodie said.

(DeNictolis: Tr. 7-24-87, pp. 93-94, Exh. 4) (Daye & Costa identical: Tr. 7-23-87, pp. 101-102, Exh. 3)

Finally, the prosecutor argued, “It is undisputed, then, that the CABL evidence introduced in this case ‘most directly ties’ the defendants to the Paglia murders, and corroborated Moodie’s testimony.” (Tr. 7-23-87, pp. 96 & 102, Exh. 3).

NRC REPORT

The NRC is an association of leading scientists, the members of which are drawn from the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. *Commonwealth v. Fowler*, 425 Mass. 819, 821 n. 6 (1997). Culminating a twelve month study by the Committee on Scientific Assessment of Bullet Lead Elemental Composition Comparison, commissioned by the Federal Bureau of Investigations, on February 10, 2004, the National Research Council released its findings in a report entitled “Forensic Analysis: Weighing Bullet Lead Evidence.” The NRC Report finds CABL practices employed by the FBI to allow an expert to testify that a crime scene bullet can be linked to a suspect to be scientifically unreliable.

Specifically, the NRC report cites the defendants case *Commonwealth v. Costa, Daye and DeNictolis* and specifically Agent Reilly's testimony to demonstrate newly determined false expert testimony. (NRC Report at 91, 92 FN-85).

The NRC Report condemns as scientifically unreliable the practice of using expert testimony to link a specific bullet to a crime scene. The NRC report found that such testimony has now been determined to be utterly unsupportable by the CABL science. (NRC Report at 90-94, 107, and Major Findings and Recommendations at 113). Specifically, the NRC Report cites Riley's testimony in this case as an example of scientifically unreliable inference drawn from CABL data⁶. (NRC Report 90-92 & n. 85).

WILLIAM TOBIN'S AFFIDAVIT

William Tobin was the former de facto Chief of Forensic Metallurgist of the FBI laboratory. (Tobin Aff. at 2). Tobin reviewed the trial testimony of Special Agent John P. Riley, defense expert Steven Morris and the new findings contained in the NRC report. (Tobin Aff. At 1). Tobin concluded that Riley's testimony that the metal fragment K-1 came from the same box or same batch of ammunition as Q 4, Q5 and Q32, the bullets retrieved in or around Patricia Paglia's body is false, based on the NRC report and his own studies. (Tobin Aff. at 5, 52, 58, 59, 60, 61, 62, 63, 64, 65).

ARGUMENT

⁶ The NRC Report also condemns as scientifically unreliable the practice of "chaining," which may result in "non-transitivity" where sample A matches B, and B matches C, but A does not match C. NRC Report at 33 & n. 13. The NRC Report found that bullets from different compositionally indistinguishable volumes of lead (CIVLs) can sometimes coincidentally be analytically indistinguishable and, therefore, the "possible existence of coincidentally indistinguishable CIVLs should be acknowledged in the laboratory report and by the expert witness on direct examination." NRC Report, Major Findings and Recommendations at 112.

I. The State Court's Findings Of Fact Should Not Be Given Any Presumption Of Correctness Because The Findings Are A Mixed Issue Of Law And Fact, They Are Not Supported By The Evidence, Are Not Based Upon Facts Contained In The Record and Are Clearly Erroneous.

Under 28 U.S.C. § 2254(d) a federal habeas petitioner must demonstrate that the state court's adjudication of the merits resulted in a decision that was contrary to, or involved an unreasonable application of, clearly established federal law determined by the Supreme Court of the United States, or resulted in a decision that was based on an unreasonable determination of the facts at the state level. See *Lockyer v. Andrade*, 538 U.S. 63, 70-73 (2003), *Bell v. Cone*, 535 U.S. 685, 693-95 (2002). The standard necessary to rebut the presumption of correctness of the state court's fact-finding is clear and convincing evidence. *Teti v. Bender*, 507 F.3d 50, 59 (1st Cir. 2007). "Clear and convincing evidence" is evidence that "place[s] in the ultimate fact finder an abiding conviction that the truth of [the defendant's] factual contentions are 'highly probable.'" *Colorado v. New Mexico*, 467 U.S. 310 (1984 (citing C. McCormick, *Law of Evidence* § 320, at 679 (1954))).

Under AEDPA, the purpose of habeas corpus review is to determine whether the state court's interpretation of federal constitutional principles either (1) resulted in a decision that was contrary to, or involved an unreasonable application of, clearly established Federal law, as determined by the Supreme Court of the United States; or, (2) resulted in a decision that was based on an unreasonable determination of the facts *in light of the evidence presented in the State court proceeding.*" 28 U.S.C. § 2254(d)(2) (emphasis added). In this case, the determination of whether the state court's decision was contrary to or an unreasonable application of clearly established federal law depends

upon the facts supporting the interpretation of the NRC Report as it relates to the petitioners' due process and constitutional challenges. See *Id.* If the state court's factual findings are erroneous, using these erroneous facts to apply the 28 U.S.C. § 2254 standard violates the petitioners' due process rights.

Here, the thrust of the State Court's denial of the petitioners' Fourth Motion for A New Trial as well as the denial of defendants Motion for Leave to Appeal rests on the state court's erroneous conclusion that the new evidence surrounding the unreliability of expert conclusions based on CABL, had been previously challenged by the defendant's at trial. In fact, the NRC report was only released in 2004, well after the petitioners' 1986 trial. The NRC Report created a watershed change within the scientific community in the validity of expert testimony matching bullets from crime scene with lead associated with suspects. In fact, every other court in the country that has examined cases involving CABL after the NRC Report has held that the NRC Report is "newly discovered." See *Commonwealth v. Lykus*, Not Reported in N.E.2d, 20 Mass.L.Rptr. 598, 2005 WL 3804726 at 16 (Mass.Super.) ("[T]he NRC report on CABL evidence was not available at the time of the defendant's trial, nor was it reasonably discoverable through normal efforts of counsel. As such, the NRC report on CABL evidence is properly considered 'newly discovered'"). See also *New Jersey v. Behn*, 868 A.2d 329, 345 (N.J.Super.2005) ("There is no doubt that the information at issue, the results of the studies by Randich, Tobin and others, was newly discovered since it was not developed until after defendant's trial. Clearly, such new scientific evidence may constitute newly discovered evidence.") See also *Berry v. U.S.*, Slip Copy, 2007 WL 4225068 at 5 (E.D.Wash.) ("[T]he fact that [the witness] made a false statement under oath and the fact that the CABL is no longer

used by the FBI are facts that have developed since the trials in this case which occurred in 1997. The evidence clearly is *newly discovered*.”) *See also Ragland v. Commonwealth*, 191 S.W.3d 569, 573 (2006) (concluding that the admission of the CABL test results and the expert's opinions about those results require reversal for a new trial.)

The state court's erroneous conclusion that the NRC report was not newly discovered was premised upon the incorrect interpretation of the petitioners' challenge at trial to the number of points of comparison an expert had to find in a bullet to declare a match. The petitioners' never challenged Reilly's opinion linking the lead fragment connecting to the petitioners to the same box, same batch of bullets as the bullet recovered from one of the victim.

The Commonwealth has maintained conflicting positions as to whether or not the defendants challenged this evidence. In its original brief to the state court in 1991, the Commonwealth argued that Karen Moodie's testimony was credible because it was corroborated by Agent Riley's conclusion that the lead projectile recovered from the basement of the Rye house and some of the fragments recovered from Patricia Paglia's body came from the same box or ammunition or from a box of ammunition manufactured at the same place on or about the same date. (Comm. Original Brief [1991] at p. 31). At footnote 25, the Commonwealth notes, “at trial, the defendants failed to challenge by request for voir dire or motion to strike, the general acceptance in the scientific community of comparative analysis of bullet lead.” (*Id.* at p. 31).

Twenty years later, after the scientific community abandoned the very evidence used to convict the defendants and Moodie recanted her trial testimony, the

Commonwealth claims that the defendants previously challenged the scientific validity of CABL. (Comm. Opposition to Def. Fourth Motion for a New Trial p. 11, 22).

In its denial of the petitioners' Fourth Motion for a New Trial, the state court manipulated the trial record, guided by the Commonwealth's erroneous factual assertion, and found that the NRC report was not new because the defendants had called an expert at trial to challenge the number of points of comparison needed to declare a match. The number of points of comparison required to declare a match is a scientific point which differs entirely from the finding of the NRC report. Moreover, the state court found that despite the Commonwealth's admission that Agent Riley would no longer be able to link the defendant to the crime using the "same box, same batch" theory he detailed to the jury, that "other ballistics evidence" linked the defendants to the crime. No such evidence exists.

The petitioners have demonstrated by clear and convincing evidence that the state court's findings are clearly erroneous. The "other ballistic evidence" erroneously relied upon by the state court is the discovery of .38 caliber ammunition under the Rye bridge that both the Commonwealth and the defense expert agreed was unrelated to this crime. The state court finding to the contrary is clearly erroneous. Moreover, even if the record did allow consideration of this unrelated .38 caliber ammunition, there is no disputing that this evidence alone would not allow the Commonwealth to argue that they could convict the defendants on the strength of the ballistic evidence alone. Nor can the state court conclude that "other ballistics evidence" somehow corroborates Moodie's testimony. It does not.

The state court stretched the evidence even further by suggesting, contrary to the NRC report and Tobin's testimony:

Agent Riley could still testify, consistent with the NRC report, that the Paglia bullet and the Rye basement bullet had been analyzed using the CABL techniques (now abandoned by the FBI) and found to be indistinguishable. He could testify that although there is a possibility of false positives, the fact that the two bullets are analytically indistinguishable increases the probability that the two bullets came from the same substrata of a manufacturers lead melt.

Commonwealth v. Daye, No. 11238-11246 at 15, (Essex Superior Court, August 3, 2005) (J. Welch). No evidence supports this conclusion. The Commonwealth called no witnesses to expound such a theory. In fact, the NRC report, the FBI and Tobin, the defense expert, all concluded just the opposite; indicating that CABL would not survive a Daubert challenge and should not be used. That the state court took on the role of an expert, absent any evidence, to generate a scientific theory of admissibility of CABL contrary to the entire scientific community is the fatal flaw in this decision that requires this Court's action to protect the petitioners. *United States v. Diaz*, 300 F.3d 66, 73 (1st cir. 2002).

The following facts, taken from *Commonwealth v. Daye*, No. 11238-11246, (Essex Superior Court, August 3, 2005) (J. Welch) are based on an inaccurate reading of the record or flow from a flawed notion that the NRC Report is analytically parallel to the Luken Report and are clearly erroneous and should not be entitled to any presumption of correctness:

Finding #1: That Karen Moodie was an important trial witness.

Commonwealth v. Daye, No. 11238-11246 at 2, (Essex Superior Court, August 3, 2005) (J. Welch).

Implicit in this finding is the contention that Moodie was a credible witness whose testimony could have supported a conviction absent Riley's "same box same batch" testimony and despite Daye's alibi. In the petitioners' Third Motion for a New Trial, Moodie recanted her trial testimony; informed the petitioners for the first time that she was paid \$ 10,000.00 for her testimony; and averred that she was supplied details of the crime that she otherwise did not know from the Commonwealth. The single piece of physical evidence that corroborated Moodie's testimony was the now invalid expert opinion linking the Rye fragment to the Paglia body.

In addition, the state court's finding that recovery of .38-caliber automatic full copper jacketed bullets, issued to the U.S. Department of the Navy, found under a bridge in Rye Harbor, somehow corroborated Moodie is clearly erroneous. In fact, the evidence at trial proved the exact opposite. An extensive search of the Rye Harbor based upon Moodie's claim that Costa instructed her to throw a gun, ammunition and clothing off the Rye Bridge into Rye Harbor, failed to locate any of the items Moodie claimed she threw into the river. The search failed to locate any police uniforms, holsters, badges, snub nose .38 revolvers, hats, loose .38 special lead revolver bullets or a stone from the Rye house fireplace. Moodie's claim that she called the police from the Rye house after the murders could not be corroborated and in fact was disproved through telephone records that failed to establish any call, *ever* from the Rye house to any police department, let alone a long distance call from New Hampshire to Massachusetts.

Furthermore, Moodie's claim that she bought a box of .38 caliber special lead "hollow-type" ammunition for the defendants to use in the Paglia robbery at the Merrill's Gun Store in Hampton, N.H., and that she placed a call from Merrill Gun Store to Costa

at the Rye house to confirm the purchase, was impeached at trial. Russell Merrill Jr., the owner of Merrill's Gun Store, told Lieutenant Spartichino that no such purchase ever occurred. Lieutenant Spartichino testified that all purchasers have to sign a receipt book. Neither Karen Moodie, nor anyone from her family ever purchased ammunition from Merrill's Gun Store. After discovering this inconsistency, investigators did not attempt to verify phone records of the alleged call to the Rye house. As such, the bullets under the bridge did not corroborate Moodie's story.

Moreover, the state court erroneously held that Trooper Scott's testimony relative to the .38 caliber ammunition corroborated Moodie's claim. In fact, Scott's testimony was limited to indicating that a bullet with five lands, five grooves and a right hand twist killed Patricia Paglia.⁷ Scott admitted that there may be "hundreds of thousands" of weapons with that rifling system in the United States and that such a round may have been fired from either a .38 special or a .357 revolver. As such, Scott's testimony alone, would not allow the prosecutor to argue that the petitioners were connected to this crime through CABL.

In addition, finding Moodie "important" turns a blind eye to the fact that Moodie recanted her trial testimony. Moodie submitted a video taped affidavit under the pains and penalties of perjury recanting her trial testimony and revealing that she received a \$10,000 reward after the defendants' trial for assisting in securing the defendants conviction. The Commonwealth conceded that they paid Moodie after trial and failed to disclose the payment to the defendants, but claimed that the amount of the payment was

⁷ New evidence discovered and contained in petitioners second habe demonstrates that one of the "other suspects" known to police, Barone, was arrested at Logan Airport right after the Paglia murders with a .38 caliber weapon with five lands, five grooves and a right hand twist.

only \$ 5,000, not \$ 10,000 as Moodie claimed. The Commonwealth itself claimed that Moodie was not credible in their Opposition to Defendants' Third Motion for a New Trial. Once Moodie recanted her trial testimony and placed "other suspects in the Rye New Hampshire house," the Commonwealth claimed that Moodie's affidavit and videotaped statement "contrived fourteen years after the trial is simply not credible." (Comm. Opp to Defendants' Third Motion for a New Trial p.22).

Finally, in order to find Moodie credible, the state court had to ignore Daye's alibi evidence that directly contradicted Moodie's claim. Daye presented 16 alibi witnesses including a priest who all testified that Daye was at a wake at the time of the murders. The defendants also presented evidence from an FBI document examiner who offered his opinion that Daye signature on the wake register was placed there contemporaneously with the signatures of the other individuals who attended the wake. As such, the state Court's finding that Moodie's testimony alone was sufficiently corroborated to sustain theses convictions is clearly erroneous.

Finding #7: That Morris discredited Riley's testing techniques.

Commonwealth v. Daye, No. 11238-11246 at 3, (Essex Superior Court, August 3, 2005) (J. Welch).

That the defendants were convicted evidences Morris' inability to discredit Riley's testing techniques. In fact, when Costa, Daye and DeNictolis challenged Riley's testimony on direct appeal the state court held

The record shows that Riley testified that the methods used in this case in conducting elemental analysis of bullet lead are generally accepted by the relevant scientific community. The record also shows contrary evidence introduced through an expert defense witness. We cannot fairly say, based on the evidence offered by the experts, that admission of the tests

conducted in this case, and Riley's opinion based thereon, creates a substantial risk of a miscarriage of justice.

(*Daye* at 742). As such, in 1991, the state court understood that the petitioners challenged Riley's methods of using three points of comparison to declare a match, not the expert opinion Reilly offered linking the petitioners to the crime using CABL. Based upon the NRC Report, the FBI abandoning the practice of CABL and defense expert Tobin, CABL can not withstand a *Daubert* challenge because the expert opinion linking bullet lead to a specific box or batch of ammunition is not accepted in the scientific community. The state court's finding to the contrary is clearly erroneous.

Finding #8: The state court erred in finding that Tobin's testimony was not newly discovered because the Court's conclusion was based on the flawed premise that Tobin, like Morris, was challenging the analytic underpinnings of bullet lead analysis.

Commonwealth v. Daye, No. 11238-11246 at 4, 10 (Essex Superior Court, August 3, 2005) (J. Welch).

The Luken Report evaluated the analytic validity of NAA in declaring a common source or match between two bullets; the NRC Report assumes that a match can be made, and focused on what expert opinion is reliable, after a match is made. Morris' testimony, premised on the Luken report, challenged the number of point of comparison necessary to declare a match. Tobin's testimony, premised on the NRC Report, challenged what opinions could be drawn from the fact of a match.

In reviewing FBI and specifically Agent Riley's prior testimony in a number of different cases where Riley detected a same box, same batch match, including references to the Costa, Daye, DeNictolis case, the NRC concluded that "the opinions in some cases indicate that prosecutors and courts have overstated the probative impact of matching evidence." (NRC p. 93-94). Finding that the NRC Report is an outgrowth of the Luken

report is akin to finding an apple is an orange. It has no basis in fact and as such, this finding is clearly erroneous.

Finding #9: The record does not support the Court’s finding that Morris and Riley fully argued at trial the issues presented in the NRC report.

Commonwealth v. Daye, No. 11238-11246 at 3, (Essex Superior Court, August 3, 2005) (J. Welch).

This finding is erroneous on two levels: first, the dispute between Morris and Riley at trial was over the number of elements needed to make a “match.” The NRC report, on the other hand, evaluated what an expert can testify about, assuming that an elemental match had been reported. Since the NRC Report was not released until 2004, well after the petitioner’s trial, Costa, Daye and DeNictolis could not have extensively argued a scientific conclusion that was not even in existence at the time of there trial. Moreover, every other court in the country that examined CABL evidence after the NRC report has declared that the NRC Report is newly discovered. In fact, every court in the country that has examined cases involving CABL after the NRC Report has held that the NRC Report is “newly discovered.” *See Commonwealth v. Lykus*, Not Reported in N.E.2d, 20 Mass.L.Rptr. 598, 2005 WL 3804726 at 16 (Mass.Super.), *New Jersey v. Behn*, 868 A.2d 329, 345 (N.J.Super.2005), *Berry v. U.S.*, Slip Copy, 2007 WL 4225068 at 5 (E.D.Wash.), *Ragland v. Commonwealth*, 191 S.W.3d 569, 573 (2006). Thus, the state court’s finding is clearly erroneous.

Finding #10: The record does not support the state court’s finding that the petitioners previously argued, via Morris, that there existed no general acceptance or valid scientific basis for the NAA or IPC analysis; and the tests were manipulated.

Commonwealth v. Daye, No. 11238-11246 at 3, (Essex Superior Court, August 3, 2005) (J. Welch).

In fact, the petitioners never challenged the scientific basis for NAA or ICP analysis at trial, on appeal or in any of the three previous Motions for a New Trial. Even Morris testified that NAA and ICP were acceptable methods of evaluating lead. Morris disputed the number of points of comparison necessary to declare a match. The state court's finding to the contrary is clearly erroneous.

Finding #12: The State Court erroneously interpreted the NRC report where it concluded that the report criticizes "same box, same batch" testimony.

Commonwealth v. Daye, No. 11238-11246 at 4, (Essex Superior Court, August 3, 2005) (J. Welch).

Contrary to the state court's findings, the NRC Report does not mount a challenge to CABL chemical analysis and criticize expert conclusions that ammunition came from the same box or a box manufactured on or about the same day; instead, the NRC Report reaffirms the reliability of CABL chemical analysis but flatly prohibits its use in the context of criminal proceedings seeking to match a crime scene bullet to a suspect bullet. Moreover, the NRC report does not merely criticize expert testimony that a bullet came from the same box or batch of ammunition or from a box manufactured on or about the same day, it *prohibits any examiner from testifying that a suspect bullet or bullet fragment came from the same box or batch of ammunition or from a box that was manufactured on or about the same day.* (NRC p. 102, 113). The NRC report made specific reference to Riley's testimony in this case as an example of *prohibited testimony.* (NRC p. 92, FN-85). The state court's finding to the contrary is clearly erroneous.

Finding #15: The state court erroneously attributed significance to the NRC Report's acceptance of the premise that NAA and ICP testing are reliable to erroneously conclude that the NRC report does not prohibit expert opinion matching a crime scene bullet with a suspect bullet. (NRC p. 95).

Commonwealth v. Daye, No. 11238-11246 at 5, (Essex Superior Court, August 3, 2005) (J. Welch).

The defendants did not challenge in their Fourth Motion for a New Trial the foundation of NAA or ICP testing. Rather, they challenged Riley's interpretation of the data from the NAA and ICP testing. In fact, William Tobin, the defense expert, confirmed that NAA and ICP testing are reliable. The state court's finding to the contrary is clearly erroneous.

Finding #16: The State Court erred in concluding that the NRC Report finds that there is a legitimate use for such analysis in criminal trial and endorses the concept that there can be, within a large lead melt, a compositionally indistinguishable volume of lead (CIVL) produced by a manufacturer.

Commonwealth v. Daye, No. 11238-11246 at 5, (Essex Superior Court, August 3, 2005) (J. Welch).

In fact, the NRC report conclusions regarding true matches and assessed matches is much narrower than that defined by the state court. The NRC authors were charged with "recommending statistical testing procedures for assessing a match." (NRC p. 209). In order to do this, the NRC concluded that an analyst would have to "calculate the sample means from the measurements (transformed via logarithms) on both the crime scene bullet and the suspect bullet and determine a pooled standard deviation." (NRC p. 209). Implicit is the assumption that the analyst is working with two bullets that are a known match. If the "sample means" on all seven elements are "too close" relative to the variability that is expected for a difference between two unrelated "sample means," then a

“match” is declared. “Too close” is determined by a constant that arises from either a non-central distribution, if Hotelling’s T2 test is used, where the relative mean differences are combined and weighed in accordance with the correlation among the seven measurement errors.

In short, according to the NRC 2004 new finding, the only consequence of a “match” is that an expert could hypothetically testify that the probability that the bullets came from the same CIVL is higher, to some unquantifiable degree, than the probability would be if no test had been run at all. The state court’s finding completely misinterprets the NRC Report and is clearly erroneous.

Finding #17: The state court erred in concluding that the fact that certain lead melts may not be homogeneous (i.e. different parts or strata of these large melts may exhibit different chemical characteristic) increases rather than decreases the relevance and reliability of analyzing a bullet and matching it to a particular manufacturer’s melt. (NRC p. 96-98). (The principal risk of inhomogeneity is a false negative – two bullets declared not to match when they come from the same melt).

Commonwealth v. Daye, No. 11238-11246 at 5, (Essex Superior Court, August 3, 2005) (J. Welch).

In fact, the NRC report does not claim that a CIVL’s inhomogeneity increases, rather than decreases, the relevance and reliability of analyzing a bullet and matching it to a particular manufacturer’s melt. Moreover, the Commonwealth offered no evidence to suggest this theory. Instead, the NRC report indicates that the “likelihood ratio” for bullet lead match data is the probability that two bullets would match hypothetically, if they came from the same CIVL divided by the probability that they would match (coincidentally or through error) if they came from different CIVL’s. Because we cannot conclude where the lead originated, this hypothetical is irrelevant.

Evidence is logically relevant only when the probability of finding that evidence, given the truth of some hypothesis at issue in the case, differs from the possibility of finding the same evidence given the falsity of the hypothesis at issue. In a criminal trial, if a particular item of evidence is as likely to be found if the defendant is guilty as it is if he is innocent, the evidence is logically irrelevant on the issue of the defendant's guilt. The admissibility of the above described evidence depends on whether the assumption made above, namely that bullets from the same CIVL have a greater probability of having the same composition as bullets from different CIVL's, has sufficient scientific support to be reliable. *That requires us to look at two assumptions currently made in the use of CABL: homogeneity within CIVL's (which affects the likelihood that two bullets from the same CIVL have the same composition) and homogeneity between CIVL's (which affects the likelihood that two bullets from different CIVLs have the same composition)* (NRC p. 97).

The statement in the NRC report relative to "the principle risk of inhomogeneity is a false negative – two bullets declared not to match when they come from the same melt," is a comment on the assumption that inhomogeneity within a melt, *if it exists*, does not weaken the inferences that can be made. However, because the degree of inhomogeneity will in general not be known, it is irrelevant. (NRC p. 96-99). The state court finding to the contrary is clearly erroneous.

Finding #20: The state court is clearly erroneous in its assessment that the NRC strongly criticizes the practice utilized in this case, of an expert witness opining that a "crime bullet came from or is likely to have come from a particular box of ammunition . . . or a box manufactured at the same time."

Commonwealth v. Daye, No. 11238-11246 at 5, (Essex Superior Court, August 3, 2005) (J. Welch).

The NRC report does not “strongly criticize” the practice used in this trial where Riley offered an opinion that a crime bullet matched a bullet associated with the defendants, *it prohibits the practice all together*. “A conclusion that two bullets came from the same melt does not justify and expert in further testifying that this fact increases the odds that the crime bullet came from the defendant. The large number of bullets made from a single melt and the absence of information on the geographic distribution of such bullets precludes such testimony as a matter expertise.” (NRC p. 102). Moreover, the NRC report concluded:

[T]he available data do not support any statement that a crime bullet came from, or is likely to have come from a particular box of ammunition, and references of boxes of ammunition in any form are seriously misleading under the Federal Rules of Evidence 403. Testimony that the crime bullet came from the defendant’s box or from a box manufactured at the same time is also objectionable because it may be understood as implying a substantial probability that the bullet came from the defendant’s box.

(NRC p. 113) As such, the state court’s finding to the contrary is clearly erroneous.

Finding #22: The state court erred in finding that based upon the NRC Report, Special Agent Riley’s testimony would simply have to be more limited than the testimony elicited at trial.

Commonwealth v. Daye, No. 11238-11246 at 6, (Essex Superior Court, August 3, 2005) (J. Welch).

There is no evidence that Agent Riley’s testimony would be admitted at all. In fact, the NRC report specifically states that in order for expert testimony interpreting CABL to be admitted the underlying assumptions of both homogeneity and a low false positive rate must pass a *Daubert* challenge. (NRC p. 99). The NRC committee noted that to its knowledge, “...the FBI is the only laboratory performing this type of lead

analysis for forensic use, so any inquiry into ‘general acceptance’ will not provide the broad consensus that this factor assumes.” (NRC p. 101). As such, any finding by the state court that Riley’s testimony would be admitted in a limited form absent the necessary inquiry into the *Daubert* factor argued in their Motion for a New Trial is erroneous as a matter of law.

Finding #23: The state court erred in finding that “Accepting the NRC report (as this judge does), Special Agent Riley could testify concerning the CABL techniques and the fact that the NRC has endorsed it. He could also testify that bullets from the same CIVL “are more likely to be analytically indistinguishable than bullets from different CIVLs (Findings P. 6)

Commonwealth v. Daye, No. 11238-11246 at 15, (Essex Superior Court, August 3, 2005) (J. Welch).

In fact, in addition to the erroneous assumption of CABL passing a *Daubert* challenge, (see Finding #22 above) this finding is contradicted by the NRC report.

The NRC report found that “in the end, one can conclude only that, given the results of a test that suggests a ‘match’ the probability that the two bullets came from the same CIVL is higher than the probability if the two bullets had not been measured at all. This of course is a weak statement. A stronger statement, namely that the ratio of the probabilities exceed one, is possible only through a carefully designed sampling scheme from which estimates and corresponding confidence intervals for the probability in question can be obtained. **No such unbiased information is currently available.**” (NRC p. 211). As a further complication, the linkage between a “match” between crime scene bullet and the suspect bullet and the inference that these two bullets came from the same CIVL depends on how a CIVL is defined. If a CS is on the boundary of a CIVL, then the likelihood of a match to bullets outside a CIVL may be much higher than if a

crime scene bullet is in the middle of a CIVL. The inability to pinpoint where within a CIVL the lead originated precludes any finding that two bullets originating from the same CIVL has any significance. The state court's finding to the contrary is clearly erroneous.

Finding #27: Agent Riley could not now testify, given the state of the science as explained in the NRC report, that the bullet in the Costa basement came from the same box or batch as the bullet that was found in Mrs. Paglia.

Commonwealth v. Daye, No. 11238-11246 at 6, (Essex Superior Court, August 3, 2005) (J. Welch).

Finding #28: The prosecutor, however, could argue this inference to the jury. NRC Report. 102

Commonwealth v. Daye, No. 11238-11246 at 6-7, (Essex Superior Court, August 3, 2005) (J. Welch).

In fact the NRC 2004 prohibition against experts opinions matching a crime scene bullet to a suspect **absolutely precludes the prosecutor from arguing the same inference to the jury as such an inference is prohibited as lacking any scientific basis.** The state court's finding to the contrary is clearly erroneous..

Finding #29: The state court erroneously found that in some respects the NRC report is an outgrowth of the so-called "Luken Report" authored in the 1970.

Commonwealth v. Daye, No. 11238-11246 at 7, (Essex Superior Court, August 3, 2005) (J. Welch).

This fact is flatly denied by the NRC report and is not supported by the evidence. In distinguishing the NRC report from earlier reports, NRC analysts note that no other report is similar to the NRC Report. Specifically the NRC committee found that before their publication, earlier articles focused on NAA, and other techniques, used fewer

elements in the analysis and *did not address the question of statistical interpretation*. (NRC at p. 100).

The NRC report was the **first** report to deal with the question of what opinion an expert witness can offer given the fact that a match exists. As such, it cannot be said that it is an outgrowth of the Luken Report, a private, non-published report focusing on the number of elements necessary for a match in CBLA. The state court's finding that the NRC Report is an extension of the Luken Report is clearly erroneous and not supported by the evidence.

Finding #24: The state court finding that Agent Riley could offer his opinion that finding two bullets that are “analytically indistinguishable increases the probability that the two bullets came from the same CIVL” (i.e. the same portion of the that produced the other bullet) is fundamentally flawed because “analytically indistinguishable” does not necessarily correlate to the actual, physical source of the bullet lead.

Commonwealth v. Daye, No. 11238-11246 at 6, (Essex Superior Court, August 3, 2005) (J. Welch).

While the NRC Report supports the statement, first proffered in the Luken Report, that it is *possible* to conclude that two bullets are “analytically indistinguishable,” the significance of the NRC report missed by the state court is the *value* of the phrase “analytically indistinguishable.” The NRC Report confirms that the elements of bullet lead can be “matched,” but the concept of “match” has no application in reality.

The equations the NRC analyses use to reach the ratio between the probability that the bullets came from CIVL's with the same or similar elemental compositions and the probability that the bullets came from CIVL's with different elemental compositions depend in part on the values of the mean concentrations across the entire universe of

CIVL's (past, present and future). The value of the mean concentrations is known only in hypothetical analysis; therefore, the bullet lead analysis has no evidentiary application⁸. The state court's finding to the contrary is clearly erroneous.

Finding #32: The state court erred in its finding that the (Luken) report, like the NRC report, addressed the issue of "false positive" in using the CABL analysis. (findings p. 7). The report notes that "two bullets with the same pattern of only three identification point are not usually definitively identified as having a common source." Luken Report p ii. (Findings p 7). The report discusses the methods of identifying bullet lead by analyzing the amount of antimony and usually two other elements e.g. (copper, arsenic, silver, etc.) in the lead melt. (Findings p. 7). The Luken report concludes that the test may be used to exclude a bullet from being from the same "lot" (or CIVL to use the phrasing of the NRC report) but the test should not be used as an expert forensic device to prove that the bullet came from the same "lot." Luken Report p. 2) (findings p.7).

The state court finding on this point completely misses the mark. The Luken Report analyzed the number of elements necessary to make a match using NAA or ICP and concluded you could get a false positive if you used just three elements to make a match. The Luken Report did not address the "false positive" aspect of the interpretation or the statically analysis of expert testimony about what significance a match has within the scientific community. That both reports refer to "false positive" and "match" does not justify a finding that the reports were analyzing the same procedure. This finding is clearly erroneous.

Finding #33: The state court was clearly erroneous in its finding that the NRC report was merely an expansion of the Luken report.

Commonwealth v. Daye, No. 11238-11246 at 7, (Essex Superior Court, August 3, 2005) (J. Welch).

⁸ Moreover, Riley used only three elements to declare his match, while in the hypothetical world the NRC requires seven elements. No evidence currently exists indicating that a seven-element match exists between the Rye, N.H. bullet fragments and the bullet pulled from Patricia Paglia's body.

Again, the state court erroneously parallels the goal of the Luken Report and the goal of the NRC Report. Because the Luken Report analyzed the number of elements necessary to make a match, not what expert testimony could be offered about the match, the state court cannot find that the Luken Report is a “work in progress” that morphed into the NRC Report.

Each report’s introduction defined its goals. The NRC reports defined its goal as “determining the appropriate statement that can be made to assist the requester in interpreting the result of compositional bullet lead comparisons, for both indistinguishable and distinguishable compositions.” (NRC p. 2). The Luken Report, on the other hand, defined its goal as determining the number of points of comparison necessary to declare a match between a suspect and crime scene bullet. The state court’s finding to the contrary is clearly erroneous.

Finding #34: The state court misinterpreted what was meant by the statement in the Luken Report that there is a serious issue of CABL analysis producing “false positives” when linking two bullets to a common source. (Luken Report, p. 4).

Commonwealth v. Daye, No. 11238-11246 at 8, (Essex Superior Court, August 3, 2005) (J. Welch).

This finding by the state court misconstrues the Luken report because the Luken report’s comments about false positives are not relative to a perceived risk in the CABL analysis. Instead, the section of the Luken report the trial court was commenting on in this finding was actually referring not to CABL analysis, the focus of the NRC report, but rather was noting that in cases where the weapon involved in the shooting incident could not be found, it could be of interest to compare an evidence bullet with an unfired bullet

found in the possession of a suspect. The Luken Report did not, as the trial court concluded, “raise a red flag that there was a serious issue of the CABL *analysis* producing ‘false positive’ when linking two bullets to a common source.” Rather, the Luken Report focused on the number of elements necessary to make a match. The Luken Report did not address either the statistical methods of analyzing a match nor the proposed limits in the interpretation of an assumed match. The state court’s findings to the contrary are clearly erroneous.

Finding #35: The state court erred in finding that in extensive and detailed testimony the defense expert, Dr. Morris, “debunked Special Agent Riley’s testimony that there was a match between the bullet in Mrs. Paglia and the bullet found in the Rye, NH basement.” The state court’s finding that “Dr. Morris’ testimony went further than this and attacked the type of CABL technique relied upon by Special Agent Riley” is also clearly erroneous.

Commonwealth v. Daye, No. 11238-11246 at 8, (Essex Superior Court, August 3, 2005) (J. Welch).

Dr. Morris’ testimony did not “debunk” Special Agent Riley’s testimony that the bullets matched. Rather, Dr. Morris questioned the number of points of comparison necessary to declare a match, not what opinion Agent Reilly could offer assuming a match had been declared. Agent Riley testified at trial that he and three associates at the FBI Lab lead the scientific community regarding bullet lead analysis:

“I feel that we are the only ones with sufficient background knowledge and research data to make conclusions that have a strong meaning behind them.”

“If you’re going to reach a conclusion on a bullet coming from a certain box of ammunition, you have to conduct research on boxes of bullets...you have to have the experience in the field...to make a proper conclusion.”

“I don’t think there is anybody that can render an opinion as strong as our group at the FBI. Riley Testimony at 114, 116 & 140.

The Commonwealth argued that “Mr. Morris, the theoretician...personally was involved in testing about ten bullets [in 1973]. Since then, he has tested one bullet. Special Agent Riley told you that he, today, is involved in analyzing bullet lead and that he had analyzed, I believe he said, thousands of bullets. So I suggest to you, members of the jury, whose opinion are you going believe, the practitioner, with the kind of experience Special Agent Riley [sic] had, or the theoretician, Mr. Morris, who had analyzed eleven bullets?” Commonwealth’s Closing at p. 100-101.

The Commonwealth demolished the credibility and qualification of Dr. Morris, and it was abundantly clear that, of the two, Agent Riley represented the relevant scientific community. Even the Supreme Judicial Court, confronted on direct appeal with this conflicting testimony, could not “fairly say, based on the evidence offered by the experts, that admission of the [CABL], and Riley’s opinion thereon,” was improper in this case. Daye, 411 Mass. at 741-742. The state court’s finding to the contrary is clearly erroneous.

Finding #36: The state court erred in concluding that Dr. Morris’s “echoing the Luken Report, found that Riley had not utilized sufficient points of comparison and later echoed in the NRC report, that there might well be far too many bullets with the same elemental composition” as the bullets in question.

Commonwealth v. Daye, No. 11238-11246 at 8, (Essex Superior Court, August 3, 2005) (J. Welch).

Dr. Morris’ testimony did not “echo the NRC report that there might well be far too many bullets with the same elemental composition.” Morris’ testimony was limited to the number of elements necessary to make a match. His focus on the “same elemental composition” was limited to the reliability of the NAA test when using only three elements to declare a match. In drastic contrast, the NRC Report questioned the validity

of any expert opinion linking the crime scene bullet to a suspect through CABL. The state court's finding to the contrary is clearly erroneous.

Finding #37: The state court erred in finding that the defendants' current expert William Tobin's testimony tracks much of Dr. Morris' testimony.

Commonwealth v. Daye, No. 11238-11246 at 9, (Essex Superior Court, August 3, 2005) (J. Welch).

Here, the state court's erroneous conclusion is based on the flawed notion that the NRC Report is an extension of the Luken Report and that William Tobin's testimony was thus analytically parallel to, and a mere extension of, Morris' trial testimony. Yet the Luken Report and the NRC Report examine fundamentally distinct and autonomous concepts. The Luken Report evaluated the scientific requirements for declaring that the lead content of two bullets is a "match"; the NRC Report *assumes that a match can be determined* and evaluates what an expert should be allowed to say about that match.

At trial, Morris attacked the process of using three elements to declare a match while the NRC report and Tobin challenged what opinions an expert can draw once a match is declared. Tobin's testimony did not focus on the number of elements necessary for a match. Rather, Tobin, like the NRC, challenged what an expert should be allowed to about once a match has been declared. (See Tobin affidavit and Supplemental Affidavit and testimony). The state court's findings to the contrary are clearly erroneous.

Finding #40: The state Court erred in finding that Tobin's recent studies and testimony, together with the NRC report, buttress the opinion of the defendant's trial expert witness - that Special Agent Riley's analysis and scientific method must be rejected because it is unreliable and liable to produce many false positive results.

Commonwealth v. Daye, No. 11238-11246 at 9, (Essex Superior Court, August 3, 2005) (J. Welch).

The basis of Morris' testimony at trial was the number of elements necessary to make a reliable match, and the unreliability of Riley's match due to the incorrect number of elements used. Here, however, the NRC and Tobin accept that a "match" can be made, based on some number of elements, and they focus on what an expert may conclude about that match. Tobin and the NRC Report focus on what an expert can say about what a "match" means within the scientific community; Morris' testimony was limited to the number of elements necessary to make a match. The state court findings to the contrary are clearly erroneous.

Finding #47: The state court erred in finding that Tobin's studies and testimony stand in marked contrast to the careful analysis of both the Luken and NRC reports and the measured, detailed testimony of Dr. Morris.

Commonwealth v. Daye, No. 11238-11246 at 10, (Essex Superior Court, August 3, 2005) (J. Welch).

In fact, Tobin's testimony and the NRC Report contradict both Morris' testimony and the Luken Report to that extent that both Morris and the Luken Report concluded that a definitive number of elements can produce a "match". The NRC flatly denies that a match to "same box, same batch" is possible. Moreover, Tobin testified that even if a match is declared, distributional studies render such a claimed match of limited forensic utility. As such, the state court's findings to the contrary are clearly erroneous.

At the very least, the factual inaccuracies here raise a substantial issue warranting an evidentiary hearing on this claim. See Townsend v. Sain, 372 U.S. at 320 83 S. Ct. 745 (habeas petitioner entitled to mandatory evidentiary hearing where state trial court does not adequately develop factual record); Hertz & Liebman, Federal Habeas Corpus Practice and Procedure, § 20.1(b) at 893-95 (gathering authorities). The petitioners have

demonstrated by clear and convincing evidence that the state court factual findings are erroneous and should not be entitled to any presumption of correctness. This petition, evaluated after exteriorizing the erroneous facts, demonstrates that the petitioners have been convicted on false evidence in violation of their rights to due process and a fair trial pursuant to the Sixth and Fourteenth Amendments such that this petition should be granted.

II. The State Court's Decision Denying Relief Should Be Reviewed De Novo Because The Petitioner's Federal Claims Were Not Adjudicated on the Merits.

As argued above, the state court's factual determinations are not entitled to the presumption of correctness because they are premised on a mistaken understanding of the relevant issues; moreover, the trial court's mistake resulted in legal errors. See e.g., Hameen v. Delaware, 2000 WL 631249, at 21-22 (3d Cir. May 17, 2000)(state court's decision was not adjudication on merits because analysis was distorted by mistaken view that the Supreme Court had already rejected identical argument.); Hogan v. Gibson, 197 F.3d 1297, 1302 n.2 1305-6 (10th Cir. 1999)(Oklahoma state court's analysis of jury instruction claim under Beck v. Alabama, 447 U.S. 625 (1980), constituted such "gross deviation from, and disregard for, the Court's rule in Beck that it cannot constitute "adjudication of Hogan's Beck claim on the merits." Since the state court did not decide the claim on its merits, we review the district court's conclusion of law de novo and factual finding, if any for clear error.").

Because the state court's decision is not a fair "adjudication" the federal court is free to review state court's legal decisions de novo. Miller v. Johnson, 200 F.3d 274, 281 n.4 (5th Cir. 2000). The Supreme Court specifically addressed this issue, and held that the limitation of review in AEDPA cases pursuant to 28 U.S.C. sec. 2254(d)(1) applies only

to issues that have been “adjudicated on the merits in state court and review is de novo when there has been no clear adjudication on the merits.” Id.

In the Fifth Circuit, the Miller court set out three factors to consider when evaluating whether the state decision is a true “adjudication” on the merits of petitioners claim: (1) review what state courts have done in similar cases; (2) consider whether the case history suggests that the state court’s recognized any ground for not resolving the case on the merit; and (3) consider whether the state court’s opinion suggests reliance on procedural grounds rather than adjudication on the merits. The Supreme Court adopted the Miller factors in Jackson v. Johnson, by denying a certiorari petition by the government after the federal court concluded, using the Miller factors, that the state court decision was not an adjudication entitled to any deference pursuant to 28 U.S.C. sec 2254 (d)(1). Jackson v. Johnson, 194 F.3d 641, 651 (5th Cir. 1999) cert. denied 120 S.Ct. 1437 (2000).

Here, because the state court failed to address the petitioners’ federal claims of constitutional violations there was no adjudication on the merits as defined by 18 U.S.C. sec. 2254(d) (1). As such, this court should review these legal claims de novo.

III. The State Court Failed To Address Whether The Commonwealth Violated The Petitioners’ Rights To Due Process And A Fair Trial In Allowing Their Convictions To Stand When Uncontroverted Evidence Suggests Their Convictions Were Based, In Whole Or In Part, On False Scientific Evidence.

The State Court failed to answer this question: Does it offend the notion of justice and a defendant’s due process rights pursuant to the Sixth and Fourteenth Amendments to the United States Constitution to allow the state to secure a conviction using false scientific evidence?

“[I]f there is one ‘fundamental requisite’ of due process, it is that an individual is entitled to an ‘opportunity to be heard.’” *Grannis v. Ordean*, 234 U.S. 385, 394 (1914). This principle is soundly anchored in the United States Constitution: “No person shall be held to answer for a capital or otherwise infamous crime . . . without due process of law. . .” U.S. CONST. amend. XIV. Where a conviction is secured using false and misleading evidence, reversal is required. *Commonwealth of Northern Mariana Island v. Bowie*, 243 F.3d 1109 (9th 2001), See also, *United States v. Wallach*, 935 F.3d 445 (2nd Cir. 1991).

In light of the new NRC Report, it is now clear that the petitioners were convicted based on false evidence that erroneously linked them to the crime through CABL. A conviction obtained by the knowing use of false testimony “is fundamentally unfair and must be set aside if there is any reasonable likelihood that the false testimony could have affected the judgment of the jury.” *United States v. Agurs*, 427 U.S. 97, 103 (1976); *Thomas v. Kuhlman*, 255 F.Supp.2d 99 (E.D.N.Y. 2003).

It is immaterial that the particular prosecutor at the time may not have known that the evidence the state sought to present against DeNictolis, Daye and Costa was false. False evidence was introduced and used by the prosecutor in his closing argument to suggest that the petitioners were guilty. Based on Reilly’s testimony the prosecutor argued: “But lastly, I feel that the evidence which most directly ties these three defendants in the killings of the Paglias is the ballistics evidence.” (DeNictolis: Tr. 7-24-87, p. 88, Exh. 4) (Daye & Costa identical: Tr. 7-23-87, p. 96, Ehx.3). The prosecutor further argued:

So I suggest to you, members of the jury, when you combine the information that Corporal Scott has provided you, with the information that Agent Riley has provided you, you have this: K-1, the bullet from the cellar had the same rifling system, similar tool marks as all four of the

bullets taken from Mrs. Paglia, and K-1 came from the same box, the same the same batch of ammunition, made on the same day, by the same manufacturer as one of the four bullets taken from Mrs. Paglia, and that fact, as much as any other fact, tells you that the murderers--murderer of Mrs. Paglia, and presumably Mr. Paglia, had been in that house in Rye, just as Karen Moodie said.

(DeNictolis: Tr. 7-24-87, pp. 93-94, Exh.4)(Daye & Costa identical: Tr. 7-23-87, pp. 101-102, Exh. 3)

Finally, the prosecutor argued “It is undisputed, then, that the CABL evidence introduced in this case “most directly ties” the defendants to the Paglia murders, and corroborated Moodie’s testimony. (Tr. 7-23-87, pp. 96 & 102, Exh. 3).

The NRC Report leads to the unequivocal conclusion that the defendants were convicted using false evidence. False evidence must be corrected once the state is put on notice that the evidence was false. Id., citing Napue v. Illinois, 360 U.S. 264 (1959), Mooney v. Holohan, 294 U.S. 103 (1935); Giles v. Maryland, 386 U.S. 66 (1967); Su v. Filion, 335 F.3d 119 (2nd Cir. 2003).

“The ultimate mission of the system upon which we rely to protect the liberty of the accused as well as the welfare of society is to ascertain the factual truth, and to do so in a manner that comports with due process of law as defined by our Constitution.” Commonwealth of Northern Mariana Island v. Bowie, 243 F.3d 1109 (9th 2001). Due process requires law enforcement not just to preserve evidence already in hand, but to gather and to collect evidence. . .that could form a basis for exonerating the defendant. Napue v. Illinois, 360 U.S. 264, 269 (1959).

The Supreme Court and the United States District Courts all agree that a conviction based of false testimony requires reversal, even absent a finding of perjury.

Pyle v. Kansas, 317 U.S. 213 (1942), Alcorta v. Texas, 355 U.S. 28 (1957); Mooney v. Holohan, 294 U.S. 103 (1935); See, Thomas v. Kuhlman, 255 F.Supp.2d 99 (E.D.N.Y. 2003) citing, United States v. Agurs, 427 U.S. 97, 103 (1976). This is so because “a lie is a lie no matter what its subject, and, if it is in any way relevant to the case, the district attorney has the responsibility and duty to correct what he knows to be false and elicit the truth.” Napue v. Illinois, 360 U.S. 264, 269-270 (1979).

The jury’s estimate of the truthfulness and reliability of a given witness may well be determinative of guilt or innocence, and it is upon such subtle factors as the possible interest of the witness in testifying falsely, that a defendant’s life or liberty may depend. United states v. Stofsky, 527 F.2d 237,246 (2d Cir. 1975).

Given the facts of this case, and the powerful effect of this evidence in the states closing argument, there is no doubt that the false CABL could have effected the jury’s decision and as such, contributed to petitioners’ convictions. This Court should allow their petitions for relief.

IV. The State Court’s Misunderstanding Of The Limited Scope Of The Luken Report And Morris’ Testimony Is Fundamentally Flawed And Renders Its Opinion That The NRC Report Is Not New Erroneous As A Matter Of Law.

The defendants did not have the benefit of the NRC report at trial. The NRC report is “newly discovered” evidence because it is a definitive statement from the relevant scientific community that the CABL evidence and testimony introduced at the defendants’ trial was entirely scientifically invalid and unreliable as a matter of law. This goes far beyond merely “supporting” the defense expert. The conclusion of the NRC report requires the complete exclusion of Agent Riley’s opinion testimony. Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Once this Court excises the finding based upon the erroneous presumption that the NRC report is an extension of the Luken Report, the record is clear that the NRC report is new, reliable, and credible, *Commonwealth v. Daye*, No. 11238-11246 at 4-5, (Essex Superior Court, August 3, 2005) (J. Welch), and precludes the exact testimony Agent Riley offered in this case. *Id.* at 6. The only conclusion this Court can reach is that the petitioners presented new, reliable, and credible evidence that would have had an impact on the jury because it casts real doubt on the justice of the petitioners' convictions. *See, Kelly v. Roberts*, 998 F.2d 802 (10th Cir.1993) (new trial granted where defendant convicted of aggravated robbery on aiding and abetting theory that he was a getaway driver but "[o]ther than the prosecutor's speculative and unsupported arguments to the jury, the record is completely devoid of any fact linking the car or defendant to the crime)(emphasis added).

- V. The Admission Of The CABL Evidence And Agent Rielly's Opinion Linking The Petitioners To The Murders Violated The Petitioners' Rights To Due Process And A Fair Trial Pursuant To The Sixth And Fourteenth Amendments Because The NRC Report Concludes That CABL Would Not Survive A Proper Daubert Challenge; Therefore, There Is No Evidence To Support The State Court's Finding That An Expert Would Or Could Testify For The Commonwealth That Raw CABL Data In This Case Would Support Any Valid And Admissible Scientific Opinion.

The state court missed the primary focal points of the NRC report, which are the interpretation of the raw CABL data and the validity of opinions based upon that data. Riley's entire testimony was the product of the exact interpretation of the raw CABL data explicitly precluded by the NRC report. As such, the NRC report concludes that a court should exclude any testimony from Riley whatsoever linking the petitioners to the crime by CABL.

The basis for the state Court's conclusion that Riley would be allowed to testify at all ignores the NRC's conclusion that any expert testimony on CABL cannot currently survive a *Daubert* challenge. The admission of expert evidence is governed by the Supreme Court's holding in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 and its progeny. The burden of proof with respect to the reliability of the expert testimony remains with the proponent of the evidence. *Id.* at 593.

In this case, the state court was not authorized to be the proponent of the evidence. Rather, the state court's role was to evaluate the evidence offered by each side and render a fair and impartial decision. In order to make any determination as to the scientific acceptance of evidence, the proponent of the evidence must submit a witness who is qualified to offer an expert opinion. *Poulis-Minott v. Smith*, 388 F.3d 354, 359 (1st Cir. 2004). Here, the state offered no such evidence and accordingly, on the current record, the state court's finding that the CABL evidence would survive a *Daubert* challenge is clearly erroneous.

Prior to admitting expert testimony a court must determine whether the proffered expert testimony is sufficiently reliable to be admitted. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999). The state offered no such evidence. Next, a court is required to determine whether the "reasoning or methodology underlying the testimony or methodology properly can be applied to the facts at issue." *Daubert* at 592-93. The state did not offer evidence to this effect.

Furthermore, even if the state had offered expert testimony, the *Daubert* court listed four factors which should guide judges on the admissibility of expert opinions: (1) whether the theory or technique can be or has been tested; (2) whether the technique has

been subjected to peer review and publication; (3) the technique's known or potential rate of error; (4) the level of the theory's or technique's acceptance within the relevant discipline. *Id.* at 593-94.

Here, the state offered no expert to validate current use of CABL. The petitioners, on the other hand, offered the NRC Report, the FBI report abandoning the practice of CABL and former FBI Agent Tobin's testimony concluding that the CABL would not survive a *Daubert* challenge. The state court's finding that Agent Riley's testimony could be presented to the jury absent a valid *Daubert* proffer is clearly erroneous.

The NRC committee notes that to its knowledge, the FBI is the only laboratory performing this type of lead analysis for forensic use, and consequently any inquiry into "general acceptance" will not provide the broad consensus that this factor assumes. (NRC p. 101). As such, any finding by the state court that Riley's testimony would be admitted in a limited form absent the necessary inquiry into the *Daubert* factors is erroneous as a matter of law.

In addition, the admission of Riley's testimony, even in a limited form, presumes that there exist the required seven elements in declaring a "match." Currently no evidence supports a seven-element match between the Rye N.H. bullet fragments and the bullet retrieved from Patricia Paglia's body. Absent that evidence, Riley's testimony is precluded in its entirety. See *Snowden v. Singletary*, 135 F.3d 732 (11th Cir.), cert. denied, 525 U.S. 963 (1998)(new trial granted where trial on charges of sexual abuse of child violated due process right to fair trial because prosecutor presented and relied

heavily on inaccurate expert testimony that 99.5% of children tell the truth” when making accusation s of abuse).

Finally, on September 2, 2005, the FBI released a statement indicating that they were stopping all testing that match bullets by lead content, a practice criticized as producing a high rate of false matches between crime scene bullets and bullets taken from suspects. (See attached). The FBI said it dropped the tests primarily because “neither scientists nor bullet manufacturers are able to definitively attest to the significance of an association made between bullets in the course of a bullet lead examination.” *Id.*

Petitioners have proven that the CABL evidence and the testimony of Agent Reilly were erroneously used to secure their convictions. The CABL testimony from Agent Reilly was false and was the single piece of physical evidence that both corroborated the state’s identification witness Karen Moodie; and connected the petitioners to the crime. Absent this evidence, the petitioners would not have been convicted. As such, this Court should allow their petition.

V. The Cumulative Effects Of All Of The Errors Violated The Petitioners’ Rights To Due Process And A Fair Trial Pursuant To *Kyles V. Whitley*.

The state court failed to address the petitioners’ cumulative error argument. All of the issues raised by the petitioners, when evaluated cumulatively, demonstrate that they did not receive a fair trial. Prejudice is determined by looking at the cumulative effect of the withheld evidence and asking “whether the favorable evidence could reasonably be taken to put the whole case in such a different light as to undermine confidence in verdict.” *Kyles v. Whitley*, 514 U.S. 419 (1995).

In this case, the nature and extent of the errors, either individually or cumulatively, obviously affected the fairness of the trial. The petitioners were denied their right to put the Commonwealth to the test of proving the charges against them beyond a reasonable doubt and as such constituted a complete break down of the adversarial system necessitating a new trial. *See, Strickland v. Washington*, 466 U.S. 688 (1984); *United States v. Guglielmini*, 384 F.2d 602 (1967). “Where there are numerous errors at trial, the reviewing courts must weigh the cumulative impact” of the errors to determine if the defendant received a fair trial. *United States v. Jones*, 482 F.2d 747 (D.C.Cir. 1973).

Here these errors, evaluated cumulatively, demonstrate that the petitioners were denied an opportunity to participate in a true adversarial testing of the Commonwealth’s case against them, and as such, warrants reversal of their conviction. *Kyles v. Whitley*, 514 U.S. 419, 441-42 (1995).

CONCLUSION

Because it is clear that the state violated DeNictolis, Costa and Daye’s rights to due process and a fair trial pursuant to the Sixth and Fourteenth Amendments to the United States Constitution, this petition for relief pursuant to 28 U.S.C. 2254 should be allowed.

Respectfully Submitted,
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CERTIFICATE OF SERVICE

I hereby certify that a true copy of the above document was served upon the attorney of record for each party and upon any party appearing pro se by first class mail, postage prepaid or by hand delivery.

Dated: 2/13/08

Signed: Dennis Toomey